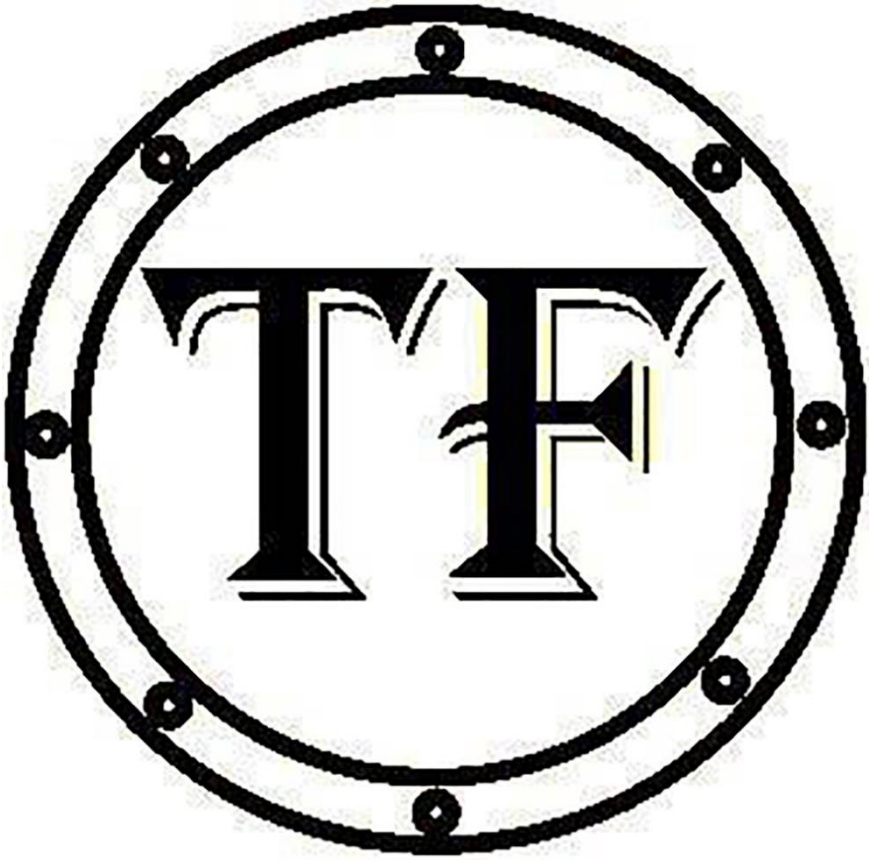
Chrome Flanges

A mid tier metal category, typically similar to carbon steel but with an added chromium content. Due to its lower nickel content, chrome is generally more cost-effective on a per pound basis in comparison to stainless steel.

Common grades include F11, F22, F5, and F9. Much like 304 and 316 stainless, these chrome options fall under the specification ASTM A182.



This specification calls out for F11, often referred to as “one and a quarter chrome.” Similarly, F22 is often called “two and a quarter chrome.”

Either of these options is an excellent substitution for the outdated F1 material grade, which is no longer commercially available. Note that F5 and F9 have chromium content in the range of 4-6% and 9% respectively.

These chrome flange grades are slightly less cost-effective than their “one and a quarter” or “two and a quarter” cousins.

Choose F11 and F22 when chromium content is less of a concern (or as a replacement for the obsolete A182 F1), and F5 or F9 for higher chromium content applications.

Note that each subset of chromium grade flanges, designated per A182 by their class number, will result in slightly different mechanical properties. For example, F11 chrome subsets are Class 1, 2, and 3.

Each class has a higher yield strength, tensile strength, and Brinell hardness value than the one before it. For more information, please reference the ASTM A182 specification or give us a call to discuss.

Chrome moly flanges offer a level of chromium not quite reaching the levels of common stainless steels like 304 and 316, but more so than typical A105.

In comparison to carbon steel, the higher levels of chromium provide a superior hardness and overall mechanical integrity, whereas the higher molybdenum content is useful in resisting oxidation and corrosion.

Under the right circumstances, chrome flanges are an excellent alternative to stainless steel when ordered in higher quantities.

They are of course mostly utilized in vessels and pipe assemblies calling for chrome moly type fittings such as pipe, elbows, and tees.

At Texas Flange, we focus on delivering fast turnaround times for the chrome moly pipe flanges you need.

With nationwide inventory levels for chrome flanges significantly lower than those for commodity carbon steel and stainless steel flanges, we ensure quick responses to meet your requirements.